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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,058	07/24/2001	Masayoshi Kobayashi	P/2291-103	6067

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EXAMINER	
PHILLIPS, HASSAN A	
ART UNIT	**PAPER NUMBER**
2151	

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/915,058	KOBAYASHI, MASAYOSHI	
	Examiner	Art Unit	
	Hassan Phillips	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to communications filed on December 29, 2005.

Claim Rejections - 35 USC § 112

2. After considering the amendments made to claims 1-3, and 6-13, Examiner has withdrawn the rejections to claims 1-3, and 6-13, under 35 U.S.C. 112, first and second paragraphs.

Response to Arguments

3. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-3, 6-8, 11, 12, are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants Admitted Prior Art (AAPA), in view of Yates et al.

(hereinafter Yates), U.S. Patent 6,167,438, and further in view of Grove et al. (hereinafter Grove), U.S. Patent 6,820,133.

6. In considering claims 1, 6, and 11, AAPA shows a method, system, and recording medium for transferring information that is not urgent from a server originally holding the information to an information-request source through a network including a plurality of routers, (see page 1, line 9, through page 5, line 16).

Although the AAPA shows substantial features of the claimed invention, it fails to expressly disclose: a relay server adjacent to one of the routers located on a path between the server and the information-request source that does not comprise a portion of the direct path between the server and the information-request source.

Nevertheless, relay servers were well known in the art at the time of the present invention. In a similar field of endeavor Yates teaches a method for distributed caching, prefetching and replication comprising the steps of: determining at least one relay server (16) adjacent to a router (14) located on a path between a server (20) and an information-request source (12), wherein the path is set by at least one router in the network (col. 6, line 39 to col. 7, line 45); and transferring the information through the path such that each relay server receives the information from upstream, temporarily stores and transmits the same to downstream wherein the relay server does not comprise a portion of the

direct path between the server and the information-request source, (col. 13, line 59 to col. 14, line 15, also see Fig. 1).

Thus, if not implicit in AAPA, it would have been obvious to one of ordinary skill in the art to modify the teachings of AAPA, to disclose a relay server adjacent to one of the routers located on a path between the server and the information-request source that does not comprise a portion of the direct path between the server and the information-request source. This would have advantageously provided and efficient means for transferring information that is not urgent closer to an information-request source, (Yates, col. 3, lines 23-39).

Although modified teachings of the AAPA shows substantial features of the claimed invention, it further fails to expressly disclose: continually transmitting a monitor packet to the relay server and measuring an average delay time.

Nevertheless, in a similar field of endeavor Grove teaches a method for high-performance delivery of web content comprising the steps of: continually transmitting a monitor packet to a relay server (14), (col. 21, lines 24-36, Fig. 1); and measuring an average delay time, (col. 21, lines 24-36).

Thus, given the teachings of Grove, it would have been obvious to one of ordinary skill in the art to further modify the teachings of AAPA, to disclose continually transmitting a monitor packet to the relay server and measuring an average delay time. This would have advantageously increased the performance of traffic over the network, (Grove, col. 5, lines 5-15).

7. In considering claims 2, 7, and 12, AAPA teaches the information-request source being a cache server for storing a copy of information that is likely to be accessed by a terminal. See page 1, lines 9-14.

8. In considering claims 3 and 8, AAPA teaches the transfer of information from the server to the cache server being caused by the cache server performing at least one of an automatic cache updating operation, a link prefetching operation and a cache server cooperating operation. See page 1, lines 9-14.

9. Claims 4, 5, 9, 10, 13, are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA, in view of Yates, in view of Grove, and further in view of Horvitz, U.S. Patent 6,067,565.

10. In considering claims 4, 9, and 13, AAPA shows a method, system, and recording medium for transferring information that is not urgent from a server originally holding the information to an information-request source through a network including a plurality of routers, (see page 1, line 9, through page 5, line 16).

Although the AAPA shows substantial features of the claimed invention, it fails to expressly disclose: a relay server adjacent to one of the routers located on a path between the server and the information-request source that does not

comprise a portion of the direct path between the server and the information-request source.

Nevertheless, relay servers were well known in the art at the time of the present invention. In a similar field of endeavor Yates teaches a method for distributed caching, prefetching and replication comprising the steps of: determining at least one relay server (16) adjacent to a router (14) located on a path between a server (20) and an information-request source (12), wherein the path is set by at least one router in the network (col. 6, line 39 to col. 7, line 45); and transferring the information through the path such that each relay server receives the information from upstream, temporarily stores and transmits the same to downstream wherein the relay server does not comprise a portion of the direct path between the server and the information-request source, (col. 13, line 59 to col. 14, line 15, also see Fig. 1).

Thus, if not implicit in AAPA, it would have been obvious to one of ordinary skill in the art to modify the teachings of AAPA, to disclose a relay server adjacent to one of the routers located on a path between the server and the information-request source that does not comprise a portion of the direct path between the server and the information-request source. This would have advantageously provided and efficient means for transferring information that is not urgent closer to an information-request source, (Yates, col. 3, lines 23-39).

Although modified teachings of the AAPA shows substantial features of the claimed invention, it further fails to expressly disclose: continually

transmitting a monitor packet to the relay server and measuring an average delay time.

Nevertheless, in a similar field of endeavor Grove teaches a method for high-performance delivery of web content comprising the steps of: continually transmitting a monitor packet to a relay server (14), (col. 21, lines 24-36, Fig. 1); and measuring an average delay time, (col. 21, lines 24-36).

Thus, given the teachings of Grove, it would have been obvious to one of ordinary skill in the art to further modify the teachings of AAPA, to disclose continually transmitting a monitor packet to the relay server and measuring an average delay time. This would have advantageously increased the performance of traffic over the network, (Grove, col. 5, lines 5-15).

Although the modified teachings of AAPA show substantial features of the claimed invention, they further fail to expressly disclose: Requesting a transfer of the information during assigned time slots.

Nevertheless, in a similar field of endeavor, Horvitz discloses a technique for prefetching information comprising: Sending a request for transfer of information to an upstream-located server holding the information, at any one time, (see col. 1, lines 8-26).

Thus given the teachings of Horvitz, it would have been apparent to one of ordinary skill in the art to further modify the teachings of AAPA to show a plurality of relay servers each having a time slot previously assigned thereto, and when a current time falls into the time slot assigned thereto, sending a request for transfer of the information to an upstream-located server holding the information.

This would have provided an efficient means for prefetching information during times when network bandwidth is low, and thus, allowing the information to be prefetched without interfering with, or affecting, other network traffic, (Horvitz, col. 3, lines 23-37).

11. In considering claims 5, and 10, the teachings of Horvitz provide a means for a time slot assigned to each relay server to be determined depending on where the relay server is installed, wherein the time slot is a time period during which small traffic is predicted in an area where the relay server is installed, (see col. 1, lines 8-26).

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hassan Phillips whose telephone number is (571) 272-3940. The examiner can normally be reached on M-F 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ZARNI MAUNG
SUPERVISORY PATENT EXAMINER

HP/
2/17/06